

What we claim is:

1. A method for manufacturing solid plating materials, comprising:  
a step for preparing a suspension liquid by mixing plating powder having electrical conductivity and a metal powder to be used for binding with a coating fluid which includes an organic binder,  
a step for forming layers on surfaces of core particles, which layers include the plating powder and the metal powder to be used for binding, wherein the plating powder and the metal powder are bound to the surfaces of the core particles by the organic binder, by means of injecting the suspension liquid onto the surfaces of the core particles while the core particles are being agitated by centrifugal fluidization, and  
a step for removing the organic binder and forming the coated layers bound to the surfaces by melting the metal powder, which layers include the plating powder, by means of heating the core particles until the temperature is above the melting temperature of the metal powder.
2. The method of claim 1, wherein in the step for forming the layers the suspension liquid is injected onto the surfaces of the core particles while the core particles are being further heated to 30—70 °C.
3. The method of either of claims 1 and 2, wherein in the step for forming the layers the suspension liquid is injected onto the surfaces of the core particles with a flow rate of 0.5—2 g/min.
4. The method of any of claims 1—3, wherein the coating fluid is comprised of water or a mixture of water and alcohol that includes less than 4% by mass of the organic binder.
5. The method of any of claims 1—4, wherein the plating powder consists of powder of an electrically conductive ceramic having an average diameter of less than 20  $\mu$ m.
6. The method of any of claims 1—5, wherein the melting temperature of the metal powder to be used for binding is lower than that of the core particles, and wherein the average diameter of the particles of the metal

powder is less than 20  $\mu$  m.

7. The method of any of claims 1–6, wherein the average diameter of the core particles is less than 2 mm, and wherein the core particles are made from any of a hard metal alloy, steel, a nonferrous metal, or a nonmetallic inorganic substance.

8. The method of any of claims 1–7, wherein the core particles are heated based on the following conditions:

when the melting temperature of the metal powder to be used for binding is 350 °C or above or 50 °C or more below the starting temperature for the oxidization of the plating powder, the core particles are heat-treated in a non-oxidative atmosphere, and

when the melting temperature of the metal powder to be used for binding is less than 350 °C or is less than 50 °C below the starting temperature of the oxidization of the plating powder, the core particles are heat-treated in air.

9. The method of any of claims 1–8, wherein the percentage of the plating powder to the core particles is less than 5% by mass, and wherein the percentage of the metal powder to be used for binding the plating powder to the core particles is less than 3% by mass.

10. A solid plating material which is manufactured by the method of any of claims 1–9.